



# Mercury in CBPs -- EPRI View of Remaining Issues

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for

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# Overview

- **Several studies, general agreement**
- **Disposal**
  - **Leaching or volatilization unlikely**
    - **Ash better documented than FGD solids**
    - **Questions on leaching test, detection limits**
  - **Questions about release due to microbial action**
- **Use**
  - **Re-release believed limited to hi-T applications**
    - **Potentially controlled**
  - **Are we certain about stability in large volume uses?**
  - **Many uses are low volume; priority for study?**



# Ash Use

- **Concrete**
  - Key impact = high activity carbon
    - Continued R&D on beneficiation
    - Need -- how much ACI into ESP?
  - Prudence suggests should demonstrate no release during curing
- **Structural fills, soil stabilization, etc., all low T**
- **High temperature applications**
  - Cement kilns -- adequately mitigated by particulate collection? Quantity used significant?
  - Hot asphalt -- bound into asphalt?
  - AAC -- released during autoclaving? Moot?



# Ash Use -- Countering Carbon

- **EPRI responding to impact of activated carbon**
  - **Passivation by  $O_3$**
  - **Development of carbon-insensitive AEA**
  - **Considering advanced mechanical separation of carbon**
  - **Will try to evaluate performance of commercial carbon separation processes on activated carbon**
- **Ultimately will become trade-off between cost to beneficiate and acceptability of lower  $\Delta Hg$  vs COHPAC investment**



# FGD Sludge Use

- **Need:**
  - Determine distribution of Hg to liquid, solid streams
  - Re-affirm stability of Hg in solids
    - Disposal or soil amendments
  - Test by-products from range of FGD processes
- Gypsum drying believed only possible re-release pathway
  - 300-350°F
- EPRI sponsoring lab tests
  - May test commercial facility